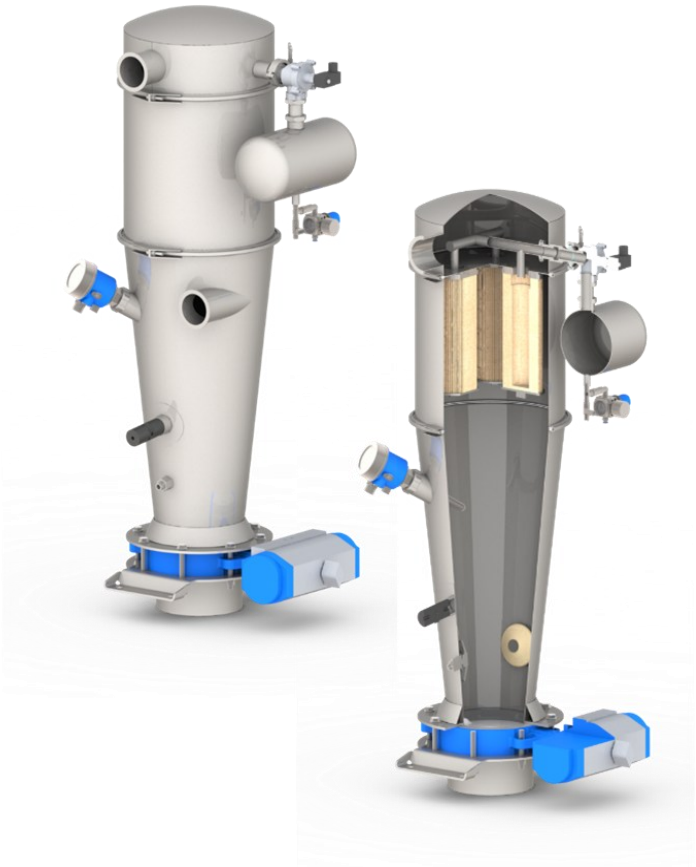

DESCRIPTION

Pneumatic vacuum conveying is a modern method of transferring dry bulk materials — powders and granules. Products are conveyed through a network of pipelines from the pick-up point to the destination using a conveying gas (typically air) under vacuum. Most systems operate automatically — based on a defined time, volume or weight. Once the cycle is complete or the programmed quantity of material has been reached, the discharge valve opens and the material is precisely delivered to the next stage of the process.

The key components of our system are the loading stations and vacuum receivers, designed with maximum hygiene, functionality and ease of use in mind. Their modular construction allows for rapid disassembly, whilst special seals and quick-release clamps enable exceptionally easy cleaning. Complete units can be stripped down to their basic components, with full access to the interior, in just a few minutes - significantly reducing downtime and increasing operational efficiency.

SPECIFICATION

- **SEW 1.1 kW** exhauster, **3 × 400 / 3 × 500 [V] AC**
- Cartridge filters with a total surface area of 8 m^2
- Automatic filter cleaning using an integrated controller and compressed air at 6 bar
- Ergonomic worktop for bag positioning and a safety grille (for safe material discharge)
- Access flap fitted with gas struts and a position sensor to activate the exhauster or sequential filter cleaning

CONSTRUCTION

- Powder-coated carbon steel
- Stainless steel 304 (bead-blasted or electropolished)
- Stainless steel 316L (bead-blasted or electropolished)

SYSTEM BENEFITS

Benefits of our vacuum conveying system:

- Modular construction of units — easy assembly, disassembly and servicing
- Ability to configure installations with multiple pick-up and destination points
- Simple and fast cleaning thanks to hygienic design
- Hygienic execution available, with easy-disassemble components and a surface finish polished to a roughness of Ra < 0.8 µm
- Safe operation in explosive atmospheres (Ex) — even in the event of a system leak, no dust cloud is generated

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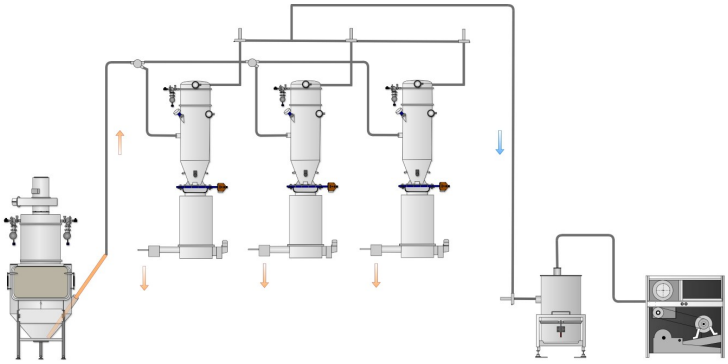
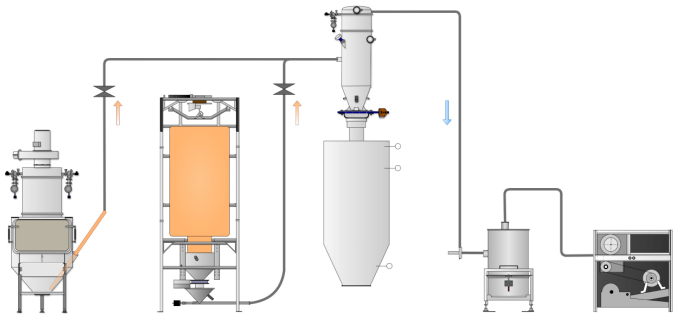
SOLUTIONS

InterProcess vacuum conveying systems can be easily adapted to a variety of process scenarios.



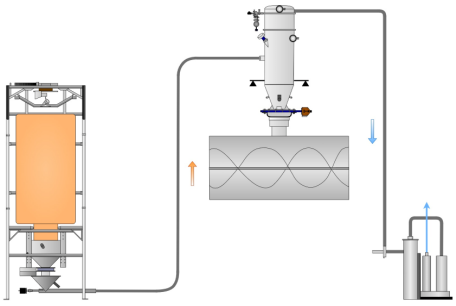
Single pick-up → multiple destinations

The system enables distribution of bulk material from a single pick-up point to multiple independent destinations. By using diverter valves, material can be directed precisely where it is needed at any given moment.



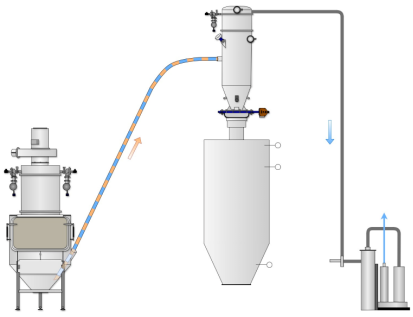
Multiple pick-ups → single destination

A configuration enabling simultaneous collection of materials from multiple pick-up points and their transfer to a common receiver. The system is ideally suited for integrating various material sources (e.g. sack tipping stations, bulk bag discharge stations) into a single process point.



Loading and dosing station with weighing system

A system integrated with a weighing unit. It enables precise batching of material before it is transferred to the next stage of the process. Ideal for applications requiring high accuracy.



Dense phase vacuum conveying

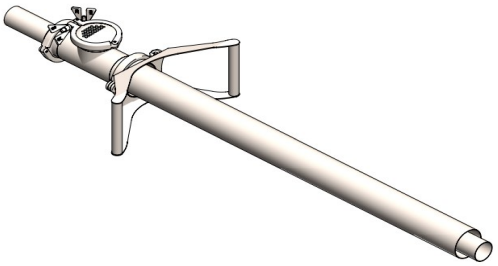
This method involves transferring bulk material with minimal air entrainment. The product moves slowly in the form of slugs, which significantly reduces product degradation and segregation. Dense phase conveying is a precise and gentle solution — ideal for applications requiring particular care in material handling.

KEY COMPONENTS

Our systems comprise modular components that can be easily adapted to new or existing production processes.

Material loading

For material loading, we use suction lances — ideal for manual emptying of sacks, drums or containers. An alternative solution is bottom suction units, mounted beneath vessels or sack tipping and bulk bag discharge stations. These provide fast, dust-free material loading.



Conveying line

Connects the pick-up point with the receiver. It can be a simple run or expanded to include:

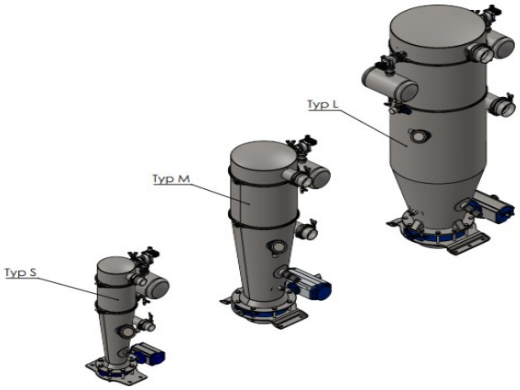
- diverter valves (multi-way valves),
- pressure relief valves,
- magnetic separators and metal detectors,
- rotary or vibratory siftwers.

Pipework is available in steel or wear-resistant plastics.

Vacuum receivers

The vacuum receiver collects material during conveying and separates it from the conveying gas (air). It contains a filter system, which can be automatically cleaned by means of a reverse pulse of compressed air.

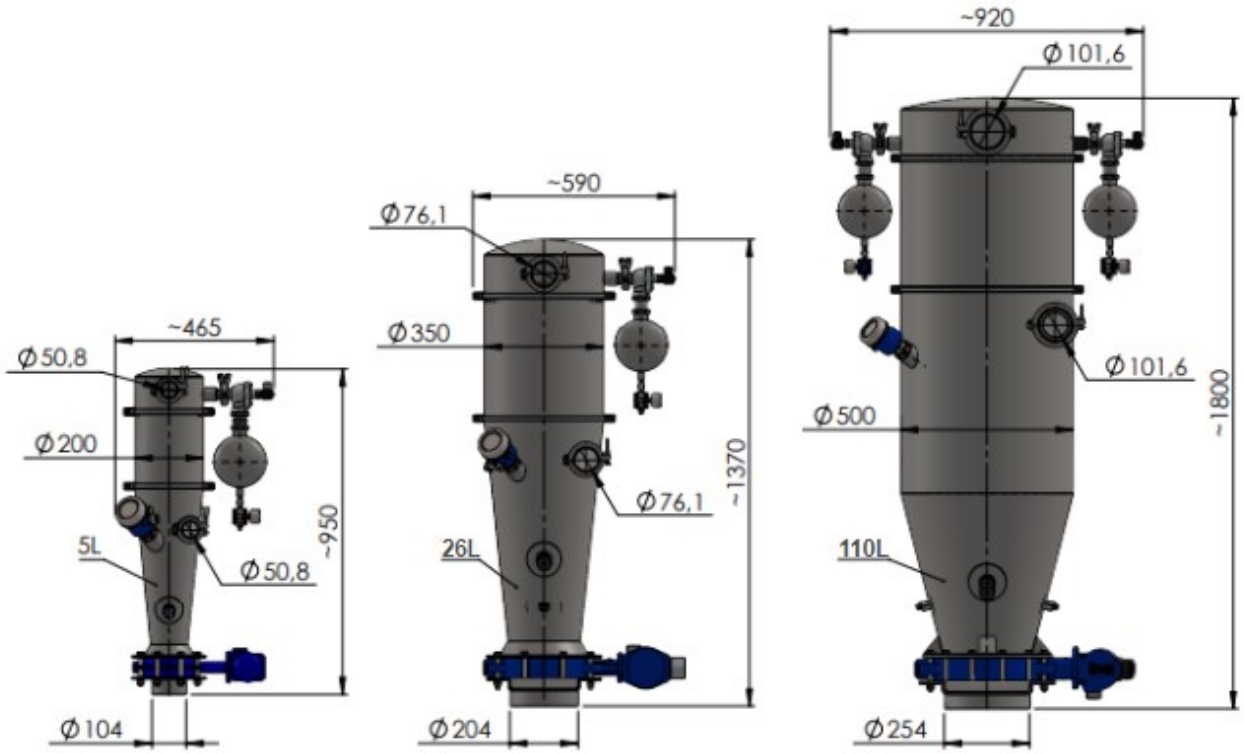
In conjunction with a weighing system, the receiver can additionally serve as a dosing unit.



Control and purge valves

Valves control the cycle: material transfer and discharge. For demanding materials, line purge valves are also used to prevent blockages.

DIMENSIONS



Note: station dimensions may vary depending on the downstream bulk material handling equipment selected.